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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,441	10/07/2003	Jin-Chuan Hsu	3722-0163P	3684
2292	7590	10/05/2006	EXAMINER .	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			RIVERO, MINERVA	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,441

Applicant(s)

HSU ET AL.

Examiner

Minerva Rivero

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-21 and 24 is/are rejected.
- 7) ☒ Claim(s) 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Allowable Subject Matter

2. Claims 1-14 are allowed.

Regarding claim 1, no reference alone or in combination discloses

a first detecting unit for detecting an amplitude of a first kind of reference signal filtered and for outputting a first detecting signal;

a second detecting unit for detecting a level of a second kind of reference signal and outputting a second detecting signal;

a third detecting unit for detecting a revolution of a third kind of reference signal and outputting a third detecting signal; and

a judging unit for receiving the first, the second and the third detecting signals, and for enabling a shock signal when the first, the second and the third detecting signals are simultaneously enabled.

Therefore claim 1, and dependent claims 2-10 and 14 are allowed.

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3. Claims 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 22 and 23, Hayashi (US 7,099,246) does not disclose nor fairly suggests

a counter for receiving the reference signal and outputting revolution length of the reference signal;

an averaging unit for receiving the revolution length and generating an average signal;

a subtracter for computing difference between the revolution length and the average signal;

a hysteresis comparator for receiving the eigenvalue, enabling the detecting signal when the eigenvalue is greater than a high threshold value, and disabling the detecting signal when the eigenvalue is smaller than a low threshold value, nor

a comparator for receiving the eigenvalue, enabling the detecting signal when the eigenvalue is greater than a high threshold value, and disabling the detecting signal when the eigenvalue is smaller than a low threshold value.

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 15 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hayashi (US 7,099,246).

Regarding claims 15 and 24, Hayashi discloses a method for controlling optical disc recording according to a shock signal to keep the recording quality (Col. 2, Lines 42-45), the shock signal being enabled while a shock level is greater a threshold (Col. 10, Lines 39-45), the method comprising the steps of:

executing normal recording process when the shock signal is disabled and a recording mode is a normal mode (Col. 10, Lines 46-48);

changing the recording mode as an interrupt mode and enabling an interrupt recording process when the shock signal is enabled and the recording mode is the normal mode (Col. 10, Lines 52-56);

storing N blocks of encoded buffer data when the interrupt recording process is enabled (Col. 10, Lines 52-56);

detecting the shock signal when the shock signal is enabled during the interrupt mode (Col. 2, Lines 42-45);

changing the recording mode as the normal mode and enabling a link recording process when the shock signal is disabled during the interrupt mode (Col. 10, Lines 57-62); and

starting recording the stored N blocks of encoded buffer data from the N-th block prior to a stop-writing position (Col. 11, Lines 40-42, 50-51 59-63 and 65-67; Col. 12, Lines 6-7 and 47-56).

6. Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Teshirogi *et al.* (US 5,835,463).

Regarding claims 20 and 21, Teshirogi *et al.* disclose a detecting unit for detecting a revolution of a reference signal and outputting a detecting signal a shock signal, and the reference signal is a spindle motor rotating frequency identifying signal (Col. 12, Line 61 – Col. 13, Line 9).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi, in view of Tsutsui (US 5,699,333).

9. Regarding claims 16 and 17, Hayashi does not explicitly disclose but Tsutsui suggests setting a servo-loop with a high gain when the recording mode is the interrupt mode, and setting a servo-loop with a normal gain when the recording mode is the normal mode (Col. 2, Lines 12-19).

Therefore it would have been obvious at the time of the invention to supplement the teachings of Hayashi and set a servo-loop with a high gain when the recording mode is the interrupt mode, and set a servo-loop with a normal gain when the recording mode is the normal mode, as suggested by Tsutsui, so that the servo gain may be adjusted to an optimum state, as disclosed by Tsutsui (Col. 2, Lines 16-18).

10. Regarding claim 18, Hayashi discloses storing N block of encoded buffer data when the interrupt recording process is enabled (Col. 11, Lines 40-42, 50-51 59-63 and 65-67; Col. 12, Lines 6-7 and 47-56).

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11. Regarding claim 19, Hayashi discloses starting recording the stored N blocks of encoded buffer data from the N-th block prior to a stop-writing process (Col. 11, Lines 40-42, 50-51 59-63 and 65-67; Col. 12, Lines 6-7 and 47-56).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matsui (US 6,930,964) discloses an information storage apparatus including a servo error generation detector.

Tsuji (US 7,023,781) discloses an optical disk apparatus wherein an interruption of a recording is causes an encoder to enter a waiting state.

Baba *et al.* (US 4,703,468) disclose an optical disc tracking servo circuit having compensation for disc defects and external disturbances.

Roth *et al.* (US 5,212,678) disclose a system for recording and reading information at a constant scanning speed.

Tsukihashi (US 6,775,211) discloses a system and method for disk recording.

Sakuma (US 5,634,031) discloses an optical disk system having table-of-contents information data.

Pan *et al.* (US 2002/0048240) disclose a link writing method for a recordable compact disk.

Smith (US 2003/0198157) discloses a method of CD/DVD vibration detection by monitoring motor conditions.

Ota *et al.* (US 5,886,966) disclose an optical disk vibration sensing and reproducing device.

Baas (US 5,867,461) disclose an optical recording and reproducing apparatus with servo compensation for detected defects and external shocks.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 9/30/06



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER